

Final Report

VegNET - Tas

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Delivery partner:

RM Consulting Group Pty Ltd

Project code:

VG18003

Project:

VegNET - Tas VG18003

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Funding statement:

This project has been funded by Hort Innovation, using the vegetable research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Publishing details:

ISBN 978 0 7341 4606 9

Published and distributed by: Hort Innovation

Level 7

141 Walker Street

North Sydney NSW 2060

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www.horticulture.com.au

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Summary

VegNET 'Phase 1' was delivered from 2016 to 2019 and included ten regionally delivered extension projects for the Australian vegetable industry. VegNET Tasmania (VG15046) was one of those ten projects. VG18003, contract no. 1721 (this project) was a nine-month extension phase of the original Phase 1 project and was delivered from June 2019 to March 2020.

The target audience was vegetable levy payers and other stakeholders in the vegetable industry, including agronomists, advisers, processors, contractors and supply chain participants.

The main **objective** of this project was to effectively extend R&D information to vegetable levy payers, via the continued delivery of VegNET services in Tasmania. These VegNET services aimed to continue to contribute to Outcome 5 of the Vegetable Strategic Investment Plan 2017-2021 "*improved industry capabilities for innovation and adoption*" and had a significant responsibility for achievement of Strategy 5.1 "*communication and extension*".

This main activities and achievements were:

- Continuation of the Tasmanian Vegetable Industry Development Officer (IDO) role by Theresa Chapman
- Supporting project VG18003: the development of a VegNET2 strategy, through coordination of a regional stakeholder event, industry contacts and feedback
- Delivering a regional research and development (R&D) forum (6 November 2019, at Forth), highlighting key Hort Innovation projects
- Assisting current Hort Innovation R&D projects to garner regional input and engagement. Thus, contributing to increased awareness of R&D
- Communications and engagement activities, including monthly newsletters, social media, farm visits and attendance at regional industry events
- IDO capacity building through participation at Hort Connections 2019 in Melbourne; and the 2019 Australasia-Pacific Extension Network (APEN) Conference in Darwin
- Delivery of one webinar: Bugs and Biosecurity, March 2020. This was originally planned as a farm walk and discussion meeting, but the delivery method was changed to a webinar, due to the COVID-19 situation at the time
- Resources development e.g. R&D updates booklet, monthly newsletter, videos and photos for newsletter and social media.

The main project outcomes were:

- A continuous presence of extension in the vegetable industry in Tasmania, building relationships, awareness and trust between industry stakeholders and the VegNET Tas IDO
- A more connected and more informed vegetable industry in Tasmania, that feels invested in extension in their industry
- A strengthened VegNET 'brand', along with increased awareness of the value of Hort Innovation and their investments in RD&E projects.

Recommendations are:

- Maintain a consistent presence for VegNET in Tasmania to continue the growth of awareness and relationships between VegNET and vegetable industry stakeholders
- Review the segmentation of the target audience we have been using, and for larger businesses, to continue and refine customised extension and adoption activities. Reduce the focus on production issues, and increase providing input into strategic industry support and expansion in line with state government and industry targets.
- More targeted one-on-one extension activities, with content being created from above-mentioned undertakings. Continue using our experience of featuring vegetable industry 'champions', to foster

adoption of new approaches

- Continue to access in-depth industry guidance from a diversity of stakeholders, with whom we deepened our relationships with as part of the VegNet project and other activities
- Continue to listen to industry stakeholders, to be able to provide information to Hort Innovation on RD&E needs for the Tasmanian vegetable industry.

Keywords

Vegetables, capacity building, extension, communication, sustainable production, horticulture, Tasmania, industry development, RD&E, adoption, practice change, regional, network.

Introduction

VegNET 'Phase 1' was delivered from 2016 to 2019. It encompassed 10 regionally delivered extension projects for the Australian vegetable industry. Building on the VegNET network developed in Phase 1, an '*Extension strategy for the Australian Vegetable industry*' (VG18003) was developed in late 2019. VegNET Phase 2 is expected to commence in 2020 informed by the strategy and an implementation plan.

Therefore, continuity of service delivery for vegetable levy payers from June 2019 to March 2020 has occurred via extending the 'Phase 1' projects, i.e. this project for Tasmania.

Key achievements of the VegNET Phase 1 project in Tasmania (VG15046, 2016 to 2019) included:

- The project Industry Development Officer (IDO) became a central point of contact for the vegetable industry. Even though our IDO changed throughout the project, it did not affect delivery due to good project management
- Strengthening of the vegetable industry network, through direct engagement with growers as well as collaboration with researchers, advisors and supply chain participants. This included collaboration and coordination with related projects, industry bodies, researchers, processors and others in the supply chain
- Delivery of a range of activities including workshops, seminars, farm walks, coordination of training in collaboration with the VegPRO project (VG15028) and on-farm visits
- Development of a range of resources and materials e.g. case studies and fact sheets, that will continue to be available on the project webpage
- Development of the VegNET brand.

The main objective of this project (VG18003 VegNET Tasmania) was to continue the essential activities offered under VegNET 1: effectively delivering R&D information to Tasmanian vegetable growers until the end of March 2020.

An important aspect of this extension phase of the VegNET project was to contribute to the development of the VegNET 2 strategy (VG18003, Extension Strategy). While the development of this strategy was being undertaken, a break in the delivery of VegNET would have potentially weakened the VegNET brand and momentum.

Methodology

General approach

The project approach encompassed the following.

1. Project inception:

- Development of a project work plan, Program Logic and monitoring and evaluation (M&E) Plan.

2. Support project VG18003: the development of a VegNET2 strategy:

- Support for regional stakeholder consultation event including planning, selecting a date and venue, promotion via existing networks, managing registrations, attending the event and taking notes, compiling a summary of notes and feedback from attendees
- Provide further regional contacts for VG18003
- Review and provide feedback on draft strategy.

3. Regional research and development (R&D) forum:

- Collaborating with Hort Innovation to plan the event
- Engaging speakers, promotion, managing event registrations
- Development of booklet containing R&D project summaries
- Facilitation on the day, and collecting and collating event feedback.

4. Assisting current R&D projects to garner regional input and engagement:

- Assisting projects with local contacts
- Communicating outputs and promoting opportunities to provide input to current R&D projects.

5. Communications and engagement activities, including farm visits and attending regional events including:

- Promoting industry training and capacity building opportunities, e.g. Hort Innovation leadership initiatives and VegPRO outputs promoted through social media, the R&D forum and the newsletter
- A monthly electronic newsletter, including relevant R&D outputs, events, training opportunities, funding opportunities and other information
- Social media
- Engagement meetings with key stakeholders including: Tasmanian Institute of Agriculture (TIA) for research outputs and the Forthside open day; TFGA Vegetable Council and biosecurity project; informal conversations with processors and packers e.g. Harvest Moon and One Harvest; involvement with the Tasmanian Agricultural Productivity Group (TAPG), specifically the Precision Ag Expo; ongoing collaboration with all three state NRM bodies in Tasmania
- Biosecurity farm visits
- Webinars involving personnel from cesar Australia, Biosecurity Tasmania, Seed Purity and AUSVEG – adapted from an event postponed due to the COVID-19 situation that became a disruption in the last month of the project.

6. IDO capacity building:

- IDO attendance at Hort Connections, including national VegNET team meeting
- IDO attendance at Australasia-Pacific Extension Network (APEN) Conference, and shared lessons learnt and ways forward with VegNET teams.

7. Project management and reporting:

- Participated in 2 VegNET national team teleconferences

- One written milestone report, including Work Plan developed with KPIs, Program logic and M&E plan developed, stakeholder engagement plan, and report on project progress against the plan
- Two verbal progress (milestone) reports to Hort Innovation R&D Manager every 90 days
- Final report.

Project Plan

A detailed project plan was developed at project commencement which included:

- Monitoring and Evaluation (M&E) Plan (including Program Logic)
- Risk Management Plan
- Stakeholder Engagement and Communications Plan
- Work plan.

Monitoring and Evaluation Plan

The program logic developed at project commencement is shown in Figure 1. This formed the framework for the Project Plan and the M&E Plan.

This included the hierarchy and connections between:

- Broader goals
- End-of-project outcomes
- Intermediate outcomes
- Outputs and activities
- Foundational outputs and activities.

The specific activities listed in the program logic at project commencement were varied throughout the project, e.g. the discussion meeting and farm walk planned for March 2020 was changed to electronic delivery due to the COVID-19 situation at the time.

The M&E Plan is included in the Project Plan, refer to Appendix 1.

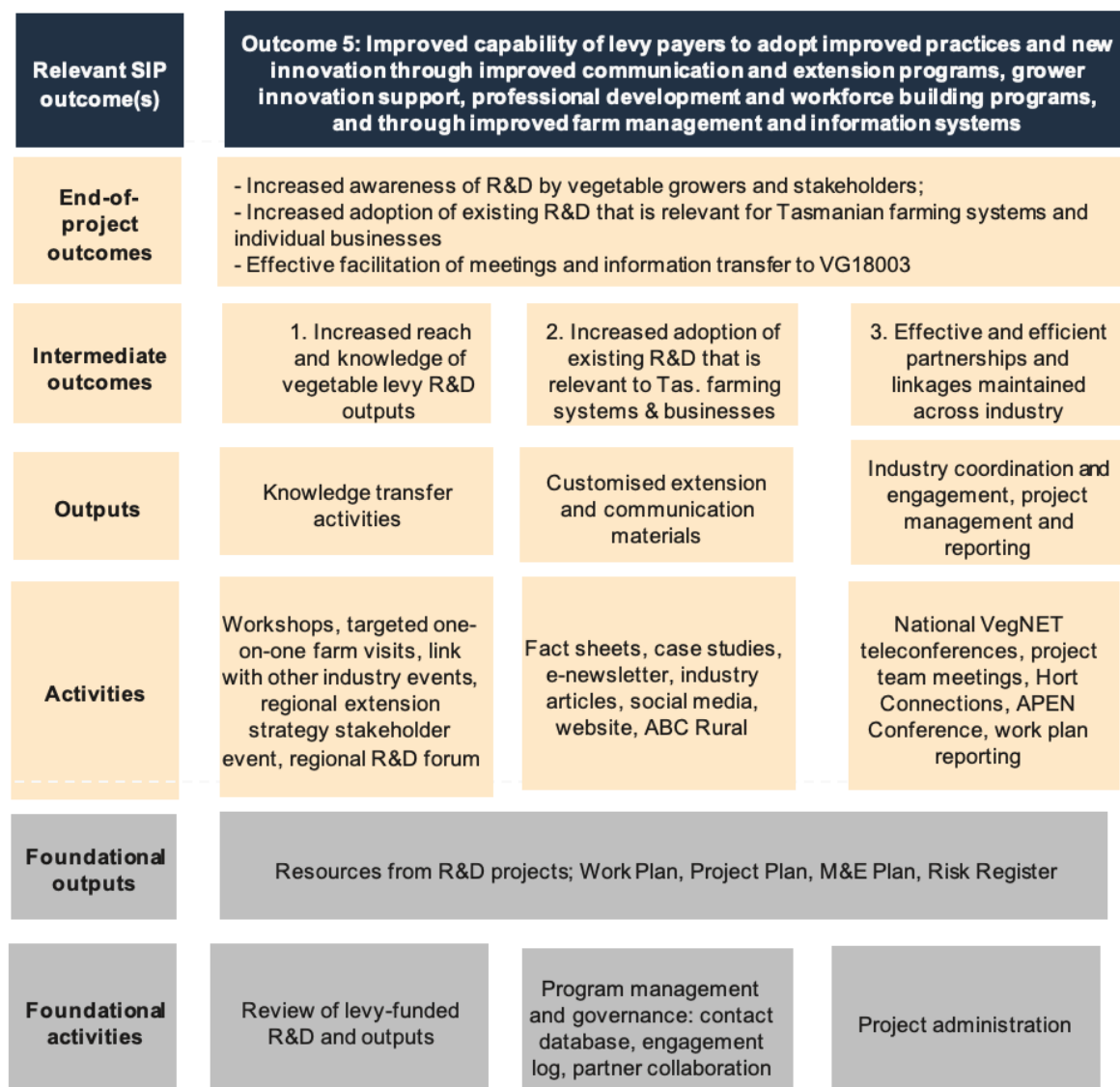


Figure 1: Program Logic

Outputs

Outputs and extension materials

Project outputs and extension materials included:

- Forums / workshops / discussion meetings:
 - Stakeholder engagement forum, August 2019, Don, attended by 14 people
 - VegNET R&D Forum, November 2019, Forthside, attended by 12 people and including presentations from four Hort Innovation projects (VG15028, VG16009, VG16068 and MT17017), and a panel of speakers including two growers, a precision ag expert and the presenters
 - Southern Tas Biosecurity Session, was planned in conjunction with Fruit Growers Tasmania (FGT), for March 2020 but was changed to electronic delivery due to COVID-19. Presentations were planned by Biosecurity Tasmania, Department of Primary Industries, Parks, Water and Environment (DPIPWE), Dr. Jess Lye (Cesar), Craig Garland (South Pacific Seeds) Calum Fletcher and Maddy Quirk (AUSVEG), and Cameron Spurr (Seed Purity)
 - Rhubarb - Pest Priorities and Agchem Access Round Table Discussion, in conjunction with AUSVEG project VG16060.
- Resources:
 - R&D Booklet, featuring 16 Hort Innovation R&D projects; printed for the R&D Forum and available online (Appendix 2).
- Webinars:
 - Bugs and Biosecurity, 27 March 2020.
- Event Flyers
 - Rhubarb Pest Priorities Round Table Discussion
 - Vegetables 2040 R&D Forum
 - Biosecurity Session
 - Bugs and Biosecurity Webinar.
- Videos (short videos for use on social media):
 - [Biosecurity awareness](#)
 - [Crimp rolling buckwheat in Sheffield, Tasmania cover crops](#)
 - [Agronomy Investigation: Targett Peas 1](#)
 - [In the field with the Integrated Weed Management Team](#)
 - [The Land Plane!](#)
 - [Land Plane in action Feb 2019](#)
 - [Hillslope Erosion Demonstration Trial by NRM North](#)
 - [Hillslope Erosion Trial by NRM North, ep 1](#)
- (Short) Articles for VegNET Tas e-newsletters, for example:
 - Crimper Roller, February 2020
 - What Have Insects Ever Done For Us? January 2020
 - Give Peas a(nother) Chance, November 2019

- Give Peas a Chance, October 2019
- Dragon-Line Irrigation Trial, October 2019
- Cover Crops for Root Vegetables showcasing grower Darren Long, August 2019
- Deep Dive: Soil Organic Matter and Soil Biology, July 2019.
- Electronic newsletters:
 - 03/25/2020 - [VegNET Tas | March Update](#)
 - 03/18/2020 - [Bugs and Biosecurity: Webinar coming soon!](#)
 - 03/12/2020 - [Bugs and Biosecurity Event in Richmond](#)
 - 02/17/2020 - [VegNET Tas | February Update](#)
 - 01/14/2020 - [VegNET Tas | January Update](#)
 - 12/17/2019 - [VegNET Tas | December Update](#)
 - 11/20/2019 - [VegNET Tas | November Update](#)
 - 10/29/2019 - [VegNET R&D Forum Next Week!](#)
 - 10/24/2019 - [VegNET Tas | October Update](#)
 - 09/23/2019 - [VegNET Tas | September Update](#)
 - 09/02/2019 - [Are you in the Onion Industry?](#)
 - 08/19/2019 - [VegNET Tas August Update](#)
 - 07/19/2019 - [VegNET Tas July Update](#)
- Magazine articles:
 - Contribution to 'Meet the VegNET IDO's' Vegetables Australia, Spring 2019.
- Social media:
 - Twitter: [@VegNET_Tas](#), 352 followers
 - Facebook: <https://www.facebook.com/VegNET.Tas/>
 - Promotion of events, resources and information from Hort Innovation R&D projects e.g.:
 - Weed management fact sheets from Integrated Weed Management (V15070)
 - Plant Analysis Guide from SWICP2 (VG16078)
 - Final report from 'Improved Knowledge of Factors Contributing to Carrot Crown Rot' (VG15066)
 - Summary in Vegetables Australia magazine by 'Optimising the benefits of vermiculture in commercial-scale vegetable farms (VG15037)
 - Onion soilborne diseases poster from the Onion Communications Project (VN18003)
 - Fact sheets from Improving processing vegetable yields through improved production practices (VG16011)
 - Onion growers field day and BBQ, 26 November 2019 (VN18003)
 - InfoVeg TV Episode 19: Harvest to Home dashboard
 - Field day: Working with earthworms, 21 August 2019 (VG15037)
 - Precision Ag Study Tour, September 2019 (VG16009)
 - SWICP2 Crop Nutrition Masterclass, August 2019 (VG16078)
 - AUSVEG Crop Specific Survey, July 2019.
 - Promoting relevant industry events and activities in Tasmania e.g.:
 - Webinar hosted by The Department of Agriculture and Fisheries aimed at everyone who manages crops that may be impacted by the Fall Armyworm; date
 - Food packaging event hosted by Tasmanian Food Cluster, March 2020

- NRM North Hillslope erosion field day, December 2019
- Forthside Vegetable Research Facility Open Day, December 2019
- North West Tasmania Agricultural Workforce Development Plan, November 2019
- Fruit Growers Tasmania (FGT), Fruit and Vegetable Food Forums, November 2019
- Nuffield Scholar, Robin Tait, report: Regenerative Agriculture Principles in High Value Cropping Rotation
- Biochar Forum, November 2019
- Forecasts4Profit and Local Climate Tool Webinar from Agriculture Victoria and Grains Research and Development Corporation, October 2019
- Young Agricultural Professionals Network event, October 2019
- Rural Youth Tasmania, Governance Training, November 2019
- Skills Impact workshop to review AHC Agriculture, Horticulture and Conservation Land Management Training Package, September 2019
- University of Tasmania, Agriculture Careers Forum, September 2019
- TFGA Biosecurity and Livestock Workshop, October 2019
- Simplot survey investigating the incidence of pink rot in potatoes, September 2019
- Regional Climate Guide 4 Farmers, September 2019
- AUSVEG workshop, Managing pest and disease risk in potatoes, August 2019
- SPAA Precision Ag Symposium, Launceston, September 2019
- Rural Business Tasmania, Engaging Youth in Agriculture Focus Group, July 2019
- Soil First, Soil Health and Crop Health field days with Joel Williams, July 2019.
- Promoting training, leadership and grant opportunities e.g.:
 - Women and Leadership Australia scholarships
 - Masterclass in Horticulture Business
 - Smart Farms Small Grants
 - Tasmania’s Drought Support Package
 - AUSVEG 2019 European Study Tour
 - AUSVEG USA Vegetable Industry Leadership and Development Mission
 - Tasmanian Weed Action Fund
 - TFGA Landcare Action Grants.
- Stories (mini case studies) of adoption e.g. post about grower Greg Gibson using cover crops, strip tillage and direct drilling.
- Displays at industry events:
 - Support for Tasmanian Agricultural Productivity Group (TAPG) Precision Ag expo, event planning and cover crop demo for expo [note that this event was planned for April 2020 and has been postponed]
 - Display at Walker Ag Vegetable Industry Forum, 22 August 2019
 - Display at Forthside Open Day, 5 December 2019.
- Engagement meetings:
 - Frequent communication with TFGA, TIA, TAPG, NRM North, Agronico, Soil First (grower group), Southern Farming Systems, Simplot field officers, Landcare Tasmania, as well as communications

with Seedlab Tasmania, Tas Food Cluster, Fight Food Waste CRC, UTAS Horticulture Business Masterclass.

- One-on-one farm visits (examples of topics discussed included farm biosecurity, cover cropping, strip tillage, direct marketing, soilborne diseases, compost).
- Other media coverage included but was not limited to:
 - AUSVEG Weekly Update – Tuesday 10 March 2020
 - AUSVEG Weekly Update – Tuesday 11 February 2020
 - AUSVEG Weekly Update – Tuesday 24 March 2020
 - AUSVEG Weekly Update – Tuesday 25 February 2020
 - AUSVEG Weekly Update – Tuesday 29 October 2019
 - Berrylink newsletter, promotion of Biosecurity workshop (March 2020)
 - Fruit E-News - Upcoming events - 2 March 2020, promotion of Biosecurity workshop
 - Fruit eNews - 12 March 2020, promotion of Biosecurity workshop
 - TFGA - Fastnews - 041019, promotion of R&D Forum
 - UTAS Ag Soc Facebook - promotion of Biosecurity event
 - Tas Fruit & Veg Export Facilitation Export Group newsletter, March 2020, general promotion of VegNET (Appendix 3)
 - [Research for Agriculture website](#), Bugs and Biosecurity webinar promotion (March 2020)
 - [SWICP2 website](#), R&D Forum promotion (November 2019)
 - Hort Innovation website, R&D Forum promotion (November 2019)
 - Business Tasmania event calendar, R&D Forum promotion (November 2019)
 - Tasmanian Country newspaper, R&D Forum promotion (November 2019) (Appendix 4)
 - [TFGA website](#), R&D Forum promotion (November 2019)
 - [TFGA website](#), Biosecurity workshop promotion (March 2020)
 - [FarmPoint website](#), Biosecurity workshop promotion (March 2020).

Attendance at industry events

The project team attended events to engage with stakeholders, including but not limited to:

- Hort Connections, June 2019, Melbourne, including attendance at a national VegNET meeting during the conference
- Plant-Soil Link, July 2019, Latrobe. This was a well-attended (>100) event held over two days by Soil First Tasmania. VegNET Tas IDO provided logistical support and delivered a presentation
- Walker Ag Vegetable Industry Forum, August 2019, Ulverstone. VegNET Tas was invited to have a trade table
- Potato R&D Forum, August 2019, Forthside. To support project PT17002, Program coordination of potato pest and disease projects, VegNET Tas promoted, attended and provided logistical assistance to the forum
- Forthside Open Day, December 5, TVRF Forthside. VegNET Tas promoted this event and attended with a trade table.

Working with related RD&E projects

The project continued to be a conduit for related projects including referral to growers and advisors; and arranging meetings and events. These included, but were not limited to:

- Integrated weed management (VG 15070): Provided contacts in the Tasmanian vegetable industry, spent time in the field to generate ideas and resources, shared resources with network and included project in R&D booklet
- Enviroveg (VG16063): Cross-promotion in newsletter and in R&D booklet. Two growers from the R&D forum subsequently contacted Danielle Park and are pursuing the Enviroveg program
- A multi-faceted approach to soilborne disease management (VG15010): Highlighting the excellent books that were an output of this project at events, in the newsletter and on social media resulted in distributing 20 copies to growers throughout Tasmania
- Vegetable cluster consumer insights program (MT17017): Project representative Chanel Day visited Tasmania for the VegNET Tas R&D forum and received a positive response from attendees
- Adoption of precision systems technology in vegetable production (VG16009): Invited to present at R&D forum and newsletter articles. Received very positive response and interest from attendees
- Optimising cover cropping for the Australian vegetable industry (VG16068): Project team member Robert Tegg presented at R&D forum
- VegPRO - Vegetable industry education and training initiative (VG15028): At the conclusion of this project, VegNET Tas used the newsletter and social media communications to promote the legacy items from the project to the vegetable industry in Tasmania. Project leader Sophie Lapsley also presented at the R&D forum about training in the vegetable industry
- Soil Wealth and Integrated Crop Protection (VG16078): Many of the resources from this important project have been promoted by VegNET Tasmania communications, and VegNET resources and events have been promoted by SWICP communications e.g. R&D Forum booklet and Biosecurity workshop (March 2020)
- Australian onion industry communications program (VN18003): At the commencement of this new project, VegNET assisted by including the sign-up for onion growers in newsletter and social media communications. VegNET Tas also supported the Tasmanian farm walk undertaken by this project with contacts and marketing. The annual onion magazine was also featured in VegNET communications
- Vegetable agrichemical pest management needs and priorities (VG16060): VegNET assisted project leader Patrick Arratia to find and communicate with growers of particular commodities, and to arrange visits and workshops in Tasmania
- Vegetable extension strategy (VG18003): as mentioned in events section
- Improving productivity using vermiculture in commercial vegetable growing (VG15037): Featured in the VegNET Tas newsletter and social posts
- TPP and Leafminer Projects (MT16018 and MT16004): Hosted project leaders from AUSVEG Calum Fletcher and Maddy Clark at biosecurity webinar in March 2020
- MT18010: Collaborated with Fruit Growers Tasmania to host a webinar event with project team member Jessica Lye as a featured guest speaker
- Improving soilborne disease diagnostic capacity for the Australian vegetable industry (VG15009): Featuring book resource in newsletter and distributing at events
- VG16086 – Area wide management of vegetable diseases: Viruses and bacteria - fact sheet in newsletter.



Figure 2: Panel at R&D Forum



Figure 3: Tour of Hills Transplants



Figure 4: Tasmanian IDO, Theresa Chapman, visiting SFS cover crop trial

Outcomes

Intended outcomes

1. The **broader goal** of the VegNET Network was:

- Sustainable development in the vegetable industry; businesses are more robust and resilient (e.g. businesses, markets, environmental management).

2. The intended **end-of-project outcomes** of the project were:

- Increased awareness of R&D by vegetable growers and stakeholders
- Increased adoption of existing R&D, that is relevant for Tasmanian farming systems and individual businesses
- Effective facilitation of meetings and information transfer to VG18003.

3. The intended **intermediate outcomes** were:

- Increased reach and knowledge of vegetable levy R&D outputs
- Increased adoption of existing R&D, that is relevant for Tasmanian farming systems and individual businesses
- Effective and efficient partnerships and linkages maintained across industry.

Refer to the Program logic in Figure 1.

Evidence of achievement of outcomes

Broader goal: Sustainable development in the vegetable industry

- This outcome is not the sole responsibility of this project. The project has contributed to it with activities as listed in the previous section.

Increased awareness of R&D by vegetable growers and stakeholders

- Relevant R&D was promoted via multiple engagement and communication channels including e-newsletter, attending industry events, providing hard copies of resources, farm visits, engagement meetings and project events e.g. the R&D Forum
- People contacting the IDO to obtain copies of resources
- Growers contacting EnviroVeg program as a direct result of attending the R&D Forum.

Increased adoption of existing R&D, that is relevant for Tasmanian farming systems and individual businesses

- It is difficult to attribute adoption of R&D to this project
- Examples of changes made, or knowledge or capacity gains include:
 - A grower enquiring about summer cover crop species, in response to reduced availability of irrigation water (distribution of the Cover Crop Factsheets)
 - Increased knowledge of the ripper mulcher machine to control erosion. This was facilitated through project communications
 - Increased knowledge on erosion management using cover crops and other measures (distribution of the SoilWealth Erosion Management Factsheet)
 - Putting biosecurity signs in place and implementing some biosecurity measures on farms
 - Growers and agronomists sharing knowledge and information on cover cropping, strip tillage, compost use, tillage machinery at field days, industry events and workshops.

Effective facilitation of meetings and information transfer to VG18003

- This project coordinated the Tasmanian stakeholder meeting for VG18003, including invitations, venue, and note taking
- Additional contact details were provided to VG18003 for telephone consultation
- Two Tasmanian representatives (one representing the fresh vegetable industry and one representing processing) attended the national meeting for VG18003.

Increased reach and knowledge of vegetable levy R&D outputs

- See above re increased awareness
- It is difficult to assess the number of hectares grown and number of commercial vegetable businesses, and advisors, engaged or reached in the project. Compiling data from event attendance lists can result in double counting as several people may attend from the same business and they also attend more than one event. However, we know that we have engaged with all of the large-scale producers, packers and processors, agronomists (EE Muir, Roberts, Elders) and all of the key industry groups, especially TFGA and TAPG). Our field days and workshops were well attended. We contributed to events (organising, delivering) such as the TAPG annual precision ag expo (200+ people attended) and the annual TIA Forthside Vegetable Research Station open day (100+ people)
- The e-newsletter circulation list and social media followers continue to grow.

Effective and efficient partnerships and linkages maintained across industry

- The IDO supported the TAPG in planning the Precision Ag Expo, including a cover crop trial ready for the Expo
- Regular interactions with Soil First grower group
- Regular interactions with an ABC Radio reporter, who promoted events via radio and interviewed industry stakeholders on key topics discussed with the IDO e.g. interview with Simplot pea field officer
- Growers regularly contacting the IDO about information and access to resources e.g. to obtain a copy of the soilborne disease guide produced by project VG15010
- Attendance at events, engagement with social media, newsletter, website, webinar views, farm visits, events attended; and engaging with related projects
- Increased social media followers and interactions, especially increased interaction and engagement with short videos
- Regular meetings with key stakeholders including TAPG, Tasmanian Fruit & Vegetable Export Facilitator, TIA, NRM Facilitators, DPIPWE, Simplot, TIA, researchers, seed companies, agronomy companies
- Through engaging with TFGA, TAPG, TIA and displays at their events, organising speakers for events
- Positive feedback received on the project newsletter (stakeholders finding it useful to hear about resources and events)
- TFGA: the peak farming body in Tasmania, VegNET has frequently collaborated with the TFGA, particularly their biosecurity project, inviting them to be part of the southern Tas biosecurity event and assisting them to distribute biosecurity signs to Tasmanian farms
- University of Sydney: VegNET Tas was contacted by Prof. Brian Jones to present to a visiting class of horticulture students and recommend farm visits. IDO Theresa Chapman connected them with the Tasmanian Vegetable Research Facility (TVRF) Open Day and grower Michael Nichols and presented to them on the topic of careers in agriculture
- TIA: VegNET Tasmania supported and attended the Forthside Open Day, providing communications and the connection to the University of Sydney students. TIA has also supported VegNET, with the use of the facilities for events including the R&D forum, and Farm Manager Doug Clark's time to talk biosecurity and generate resources from a farm visit

- NRM North: VegNET Tas followed a demonstration trial run by NRM North on hillslope erosion, generating video and articles for communications
- Cradle Coast NRM: VegNET Tasmania has followed the journey of the ripper mulcher erosion control machines closely, keeping them in the public eye with communications and enquiries. This focus had a part to play in the inclusion of these machines in the new erosion project being undertaken by Cradle Coast NRM, who have recovered six machines and will put them back into service
- Agronico: IDO Theresa Chapman spent time with Agronico agronomist Peter Targett in several pea crops, looking closely at production and plant health issues and generating content for communications
- Southern Farming Systems (SFS) cover crops trial: VegNET Tas visited a farm in Sheffield to check in with Ian Herbert from SFS about a cover crop trial he is managing in Tasmania and other locations. IDO Theresa Chapman generated communication content and successfully assisted SFS to find and contact other suitable vegetable growers for further trials in the project
- Landcare Tasmania: VegNET Tas IDO Theresa Chapman was instrumental in forging connections between Tasmanian growers and Landcare Tasmania. Theresa also nominated two of the award-winners at the Landcare Tasmania conference, a grower group called Soil First Tasmania (Farming Award) and an individual grower, Michael Nichols (Innovation in Farming). These will go on to be in the running for the national Landcare awards in Sydney in November, bringing recognition and awareness to the broader agricultural community and bridging the gap between conservationists and managers of productive landscapes
- Other projects that VegNET Tas has amplified through social media and the newsletter include Seedlab Tasmania, Tas food cluster, Fight Food Waste CRC, UTAS Horticulture Business Masterclass, SARDI's DNA testing for vegetables project and others.

Conclusions about project outcomes

The dialogue within the vegetable industry has changed significantly since the inception of VegNET in 2016. Ideas such as precision agriculture, biosecurity, cover cropping, making and using compost, focusing on soil health and reducing tillage are now more commonly discussed and implemented for vegetable crops. VegNET Tasmania has been a part of this discussion and ongoing transition to more sustainable production practices. By increasing the accessibility of resources, sharing stories and images from industry leaders and hosting events that feature research projects, VegNET has advanced and accelerated the changes that are still underway. This process has also been supported by VegNET Tasmania working closely alongside the NRM bodies and Landcare Tasmania, as well as with grower groups and agronomy providers. This extension phase of the project has ensured that the momentum is maintained into the transition to VegNET 2.

The work of IDO Theresa Chapman in coordinating a diverse range of key growers and industry members to meet and speak with the VG18003 project team was an important outcome of this project. Hosting the stakeholder meeting and providing further contacts for phone interviews, as well as the national meeting in Sydney, ensured that Tasmanian vegetable growers had a voice in the development of the extension strategy, and the strategy accurately represent the diverse growing regions of Australia. Feedback from one of the Tasmanian growers who attended the meeting in Sydney was positive, they felt engaged and heard.

VegNET hosted two important events for the Tasmanian vegetable industry during this extension phase. Events like these are a chance for industry members to get together for networking and sharing stories, which is important for the social sustainability of vegetable growing. These opportunities are quite rare for vegetable growers compared to other agricultural industries. Both events, the stakeholder meeting and the R&D forum received positive feedback by attendees and produced new and ongoing relationships within the industry.

Growers and agronomists are confident in refereeing to the IDO with questions about sustainable production.

Monitoring and evaluation

Table 1 provides the project log frame from the M&E Plan (evaluation level, project details and performance measures) and achievement against the performance measures.

Table 1: Achievement against project M&E performance measures

Project details	Performance measures (KPIs)	Achievement
Evaluation level: BROADER GOAL		
Potential Long-Term Impact Sustainable development in the vegetable industry; businesses are more robust and resilient (e.g. businesses, markets, environmental management).	Not the sole responsibility of the funded project.	Supported this outcome Via fostering the use of sustainable practices (cover cropping, reduced tillage, erosion control, use of compost, biosecurity).
Evaluation level: END-OF-PROJECT OUTCOMES		
Implementation of strategy to extend R&D outputs further throughout the vegetable industry.	Uptake of R&D outputs within the vegetable industry continuing (from VegNet 1), increased or planned to increase in the future.	Progress made The Vegetable Industry Extension Strategy was developed by another VG18003 project. This project was only indirectly involved. We supported development of the strategy through coordination of a local stakeholder meeting, providing contact details for consultation and for the national meeting. Anecdotal evidence of updates on R&D is included in the outcomes section of this report. The IDO increased vegetable industry contacts and relationships, laying good foundation for the next phase with new extension strategy.
Evaluation level: INTERMEDIATE OUTCOMES		
Increased reach and knowledge of vegetable levy R&D outputs.	Vegetable growers and key service providers/ advisers know relevant R&D outputs for the vegetable industry.	Progress made Refer to outcomes section of this report. More growers and service providers are aware of R&D outputs as evidenced by the increased click rate of newsletter and following on social media, with room to improve and increase reach further.
Increased adoption of existing R&D.	More growers using knowledge and tools from relevant R&D projects.	Progress made Difficult to attribute to this project alone, but anecdotal evidence of increased adoption as described in outcomes section.

Project details	Performance measures (KPIs)	Achievement
Partnerships and linkages across industry.	VegNET 2 strategy is supported and informed by vegetable levy payers, and stakeholders in Tasmania.	Achieved and ongoing As mentioned above, the VegNET 2 strategy received input from Tasmanian vegetable industry via attendance at the regional stakeholder meeting, telephone consultation and a representative attended the national meeting. Informal feedback indicated that industry members involved felt heard. Good relationship has been established with TFGA and TAPG. Ongoing industry support will be monitored in VegNET Phase 2.
	Relationships maintained with vegetable producers/ packers/processors, TFGA, TAPG, TIA/UTAS, Agribusinesses, TasTAFE, NRM bodies.	Achieved and ongoing Relationships and linkages greatly strengthened between VegNET Tas and other relevant projects and organisations as listed. Refer to outcomes section of this report.
Evaluation level: OUTPUTS AND ACTIVITIES		
Knowledge transfer via workshops, targeted one-on-one farm visits, link with other industry events, regional extension strategy stakeholder event, regional R&D forum, biosecurity event.		
Industry stakeholder sessions and further contacts for VG18003.	<ul style="list-style-type: none"> 12-15 attendees at stakeholder meeting Attendees informed about VegNet objectives; they have provided input to Strategy. 	Completed 14 vegetable industry members attended the regional stakeholder meeting; two went on to attend the national meeting in Sydney. 10 additional contacts were provided to the VG18003 project for phone consultations.
R&D Forum.	<ul style="list-style-type: none"> 35-40 attendees at R&D forum. 	Completed Attendee numbers less than hoped (12). This was mainly due to timing at a busy time; and we were constrained by project timeframes. Feedback was very positive and industry connections were forged (refer to feedback in Appendix 5).
Attendance at, contribution to linked industry events.	<ul style="list-style-type: none"> At least 3 relevant industry events attended/supported. 	Completed Five industry events actively attended by VegNET IDO (see outputs section of this report).

Project details	Performance measures (KPIs)	Achievement
Biosecurity workshop / Biosecurity Webinar.	Number of attendees Positive feedback about usefulness.	Completed (changed format) A workshop with six presenters plus a farm walk at Richmond (in southern Tasmania) was planned for March 2020. Due to COVID-19 the event was changed to electronic delivery. One webinar was delivered (6 people attended) and recorded so that others can view it in their own time. A second webinar was proposed but not all presenters were available due to their increasing workloads as a result of the pandemic.
Farm visits.	Response from growers and industry Number of visits.	Completed This activity was limited by timing. A focus on biosecurity was intended; however due to limited interest in developing farm biosecurity plans, only four visits were conducted; however, seven signs were distributed. Popular video and social media content were generated from the visits.
Customised communication and extension materials		
Industry training opportunities promoted.	All relevant opportunities promoted.	Completed Refer to list in outputs section of this report.
Communication articles.	Nine e-newsletters, three articles in other publications	Completed Nine e-newsletters published and distributed. Growing subscriber base for e-newsletter, steady opening rate and increasing click rate. >20 people contacted IDO for resources or information. 10 articles in other publications produced about VegNET events and R&D information. Refer to Outputs section of this report for details.
Social media communications.	Continued growth of social media followers.	Completed Followers increasing, interactions increasing. Twitter: 466 followers Facebook: 202 followers Most popular original content: >6700 views (Facebook).

Project details	Performance measures (KPIs)	Achievement
Engage with VegNET team to share and collaborate on extension resources.	Monthly contact with VegNET IDOs in other regions.	Incomplete Contact between VegNET Tasmania and other VegNET projects was limited to Hort Innovation facilitated meetings, social media shares and newsletter reading. This is an area for improvement.
Evaluation level: FOUNDATIONAL ACTIVITIES		
<ul style="list-style-type: none"> R&D Review Program management Project delivery and governance. 	<p>Hort Innovation target projects reviewed.</p> <p>Key industry members consulted, inception meetings, teleconferences.</p> <p>Project delivered to plan and on time.</p>	<p>Completed</p> <p>Priority R&D list referenced throughout the project e.g. refer to R&D Forum and booklet produced.</p> <p>Key industry members were consulted including TFGA Vegetable Council members, processors, growers, agronomists, researchers.</p> <p>All VegNet teleconferences were attended.</p> <p>The project was delivered to plan as evidenced by the M&E section with only one incomplete aspect being the engagement with other VegNet projects.</p> <p>Written and verbal milestone reports were submitted/provided.</p> <p>This report is the Final Report.</p>
Evaluation level: CONTEXT		
Context	What changes occurred in the external environment (climate, prices, policies etc.) that may have affected/explained project outcomes and performance?	In the last two to three weeks of the project, the COVID-19 pandemic affected the ability of the IDO to engage in-person. This meant that one event that was planned for southern Tasmania was changed to electronic delivery and due to timing could only be partly delivered. In addition, growers were increasingly busy implementing their crisis management / business continuity plans. Other stakeholders, e.g. people working in biosecurity, were busy with the pandemic responses and therefore committing to nominated times for activities was challenging.

Event evaluations

1. R & D Forum Attendee Evaluation

A summary of the responses to the evaluation survey carried out by attendees of the forum (full results in Appendix 6):

- Growers represented the largest group in attendance (50%)
- Attendees mostly found the presentations useful to very useful

- With the exception of timing, all aspects of the forum were considered adequate to excellent, with most rating as 'good'
- The presentation about project VG16009 – The adoption of precision systems technology in vegetable production, with John McPhee and a Precision Ag consultant was a standout for interest and value to attendees
- Lessons learned: it's all about the timing. This event was undertaken at a very busy time of year for growers, many of whom expressed frustration at the timing.

2. Bugs and Biosecurity Webinar

This event was well organised to take place at the South Pacific Seeds site in Southern Tasmania with 20+ registrations and a great line up of speakers from Biosecurity Tasmania, AUSVEG, Cesar and Seed Purity. It has been replaced with a webinar with Dr Jessica Lye from Cesar. However, not all who were going to attend the field day attended the webinar.

Lessons learnt: The field day location and line up of speakers is an important drawcard as is the effective promotion of such an event. A webinar can replace the information content of a field day, but not the social aspect and the aspect of giving people a look at what a company or grower is doing in their business.

Therefore, as restrictions around gatherings continue, we need to come up with more interactive approaches to delivery e.g. using videos, interactive Zoom meetings, virtual field walks.

Newsletter analytics

A monthly e-newsletter was delivered. These newsletters contained relevant events, funding and scholarship opportunities, industry news and information including many links to other research projects and resources.

Table 2: e-Newsletter analytics

Subscribers	330
Average Opens	28.6% of 96
Clicks	Sep: 5% - Feb: 11.2%
Average Facebook reach	36

An average of 96 subscribers opening the newsletter, more accessing it from Facebook and the amount of 'clicks' steadily increasing, indicated increasing reach and/or relevance to readers. Therefore, the newsletter is performing well as a communications platform.

Social media analytics

Recognising that modern growers and young growers are accessing a significant volume of information from social media platforms, VegNET Tas aimed to make the most of these channels.

Current community:

- Twitter: 463 followers (80 new followers since July 2019)
- Facebook: 200 followers.

Adaptive management

We planned an event in Southern Tasmania in response to feedback that there had been limited events in the southern part of the State. The event was well-planned and was shaping up to be an excellent event. Unfortunately, due to the COVID-19 pandemic, this event had to be changed to electronic delivery via webinars.

VegNet reacted to other feedback from growers and agronomists to deliver information about e.g. mixed cover crops, biosecurity and research outputs as they occurred.

What efforts did the project make to improve efficiency?

There are several examples of efficiency that illustrate how VegNET Tas is always seeking to provide value for investment to levy payers. The project team has a breadth of knowledge and experience e.g. Dr Doris Blaesing, and other members of the RMCG team are available to answer questions quickly e.g. about agribusiness, water use on farms or engagement. We have in-house desktop publishing, website management, webinar delivery, video and podcasting abilities. This significantly contributes to efficiencies. Connecting with and amplifying the outcomes and resources of other Hort Innovation projects adds value to both VegNET and the other projects. Accessing guest speakers for events who could fund their attendance through their own projects provided efficiency on several occasions. VegNET partnered with industry members like the Tasmanian Vegetable Research Facility, Hills Transplants and South Pacific Seeds for in-kind support for events such as venue facilities. As a nine-month extension phase continuing from VegNET 1, this project provided the efficiencies inherent in network maintenance and linkages. The Tasmanian RMCG team around the IDO has excellent connections to major industry associations, businesses and DPI/PWE policy, spatial intelligence and biodiversity staff as well as with Skills Tasmania (Department of State Growth) and the DEPAC Climate Change Office. This makes it easy to access relevant information and align strategic activities with those of other organisations.

Conclusions from monitoring and evaluation

- **VeNET Tasmania is valued by industry.** VegNET has continued to gain momentum and reach. Growers and other industry stakeholders value having a point of contact for resources and information; and they value having a project with the capacity to coordinate across industry networks, while remaining independent. Collaboration and coordination was important for strengthening the project network. This includes, collaboration and coordination with related projects, industry bodies, researchers, processors (and field officers) and others in the supply chain
- **Short videos posted via social media are effective.** Short videos and photo resources from farm visits were popular. For example, one short clip of a buckwheat cover crop being crimp rolled reached 6,795 people and was shared 11 times from the VegNET Facebook page. Therefore, while not all of the target audience are actively engaged in social media, this method should be continued in Phase 2. Even those not actively involved are hearing about the posts from those who are e.g. agronomists (acting as multipliers)
- **Farm visits are effective for building networks and connections; however, some topics are not a priority for growers and/or engagement on these topics takes time.** We identified farm biosecurity as a priority topic, and offered to visit farms and support people to complete a straight-forward farm biosecurity plans (using TFGA planners). There was very limited interest in developing these plans; however, there was interest in farm signs, and seven farm signs were distributed. The apparent disinterest is an area of concern and we will therefore continue to raise awareness in this area
- **Timing of events / activities is important for getting participation.** Generally, winter is the best time to conduct events because growers are too busy during the growing season, which for a majority of vegetable growers is from early spring through to early/mid autumn. Timing of this nine-month project therefore limited the project's ability to run events.

Recommendations

- Maintain a consistent presence for VegNET in Tasmania to continue the growth of awareness and relationships between VegNET and vegetable industry stakeholders
- Review the segmentation of the target audience we have been using, and for larger businesses, to continue and refine customised extension and adoption activities. Reduce the focus on production issues and increase providing input into strategic industry support and expansion in line with state government and industry targets
- More targeted one-on-one extension activities, with content being created from above-mentioned undertakings. Continue using our experience of featuring vegetable industry ‘champions’, to foster adoption of new approaches
- Continue to access in-depth industry guidance from a diversity of stakeholders, with whom we deepened our relationships with as part of the VegNet project and other activities
- Continue to listen to industry stakeholders to be able to provide information to Hort Innovation on RD&E needs for the Tasmanian vegetable industry.

Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report.

Acknowledgements

VegNET Tasmania gratefully acknowledges the support and assistance received from many members of the Tasmanian vegetable industry. The project team would like to thank everyone involved, and at the risk of missing some, we would particularly like to thank the following businesses and individuals:

Harvest Moon, Premium Fresh, One Harvest and Harvest Farms, Houston's Farms, Julie Finnigan, Serve-Ag, John McPhee, Tasmanian Institute of Agriculture (TIA), Mark Boersma (TIA), Doug Clark (TIA), Stephen Hill, Hills Transplants, Craig Garland, South Pacific Seeds, Nathan Richardson. Matt Young, Elphin Grove Farm, Rebecca and James Addison, Charlton Farm, David Roberts-Thomson, Van Diemen Quality Bulbs, Peter Targett, Agronico, Darren Long, MG Farm, Hugh Hogan, ABC Rural, Reuben Wells, AgLogic, Michael Nichols, Redbank Farm, Greg Gibson, Gibson Ag, Adrian James, NRM North, Simplot.

Appendix 1 - Project Plan

Provided to Hort Innovation separately. A project logic is included in the body of the report.

Appendix 2 - R&D Forum Booklet

Copy of the R&D Forum Booklet contents page, booklet attached.

CONTENTS	
National Vegetable Industry Communications	1
Integrated Weed Management: A strategic approach to weed management for the Australian vegetable industry	3
Adoption of Precision Systems Technology in Vegetable Production	5
Vegetable agrichemical pest management needs and priorities	7
Vegetable Industry Export Program	8
Field and Landscape Management to Support beneficial arthropods for IPM on vegetable farms	9
Optimising cover cropping for the Australian vegetable industry	10
Soil Wealth and Integrated Crop Protection	11
Vegetable Export Facilitators	13
Area wide management of vegetable diseases: Virus and Bacteria	15
Vegetable Cluster Consumer Insights Program	16
Attracting new entrants into Australian Horticulture	18
iMapPESTS: Sentinel surveillance for agriculture	19
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Leadership Frontiers Fund Investments	21
Hort Frontiers: Innovative cold plasma for horticultural industries	22
VegPRO: Vegetable industry education and training initiative	23



Hort Innovation
Strategic levy investment

VEGETABLE FUND

This project has been funded by Hort Innovation using the vegetable research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

Appendix 3 - Tasmanian Fruit & Vegetable Export Facilitation newsletter: example of project media

Welcome to our first newsletter!

[TAKE THE SURVEY](#)



ACBC Mailing List

The Australia China Business Council supports business relationships between Australia and China and can keep you up to date on the latest changes.

Sign up to the mailing list [here](#).

VegNet

The 'National Vegetable Extension Network - Tasmania' (VegNET) provides information on up-to-date research results, resources, courses and events relevant to growers, packers, processors and advisors in the Tasmanian vegetable industry.

[READ MORE](#)

Stay in touch!

Subscribe to our mailing list [here](#),
or update your email preferences [here](#).

Appendix 4 - Tasmanian Country newspaper: promotion of R&D Forum

News

country
Tasmanian Country Newspaper

FEATURE

INSIDE

CHICKEN IS THE PADDOCK PH-15

ASPARAGUS ACES PG-7

Bush Telegraph

Average winter tipped

LOW STRESS STOCK HANDLING SCHOOL

WEEKEND MARKETS

SATURDAY

SUNDAY

FORUM: VegNet will hold a forum on the future of Tasmania's vegetable industry on November 6.

BIOSECURITY FOCUS: The Tasmanian Farmers and Growers' Association hosts two workshops on biosecurity and livestock. The first event is on October 30 at Longford Bowls Club and the second on October 31 at Devonport Bowls and Croquet Club.

VEGETABLES 2040: VegNet invites anyone interested in its inaugural R&D forum to discuss the future of the vegetable industry in Tasmania.

LOW STRESS STOCK HANDLING: The Low Stress Stock Handling School's Greg Bradfield will conduct a workshop at 2098 Cape Portland Rd, Cape Portland, on November 12 and 13. L&L can help achieve calm, confident management of livestock in all situations. The school caters for those who have little or no experience in handling stock as well as highly competent stock handlers.

PASTURE SMARTS: Pasture coaching groups for dairy farmers are forming in different regions based on expressions of interest, with groups currently running in the North-East, Southern and Midlands and on King Island. Pasture coaching aims to develop pasture-management skills and involves 10 meetings over a 12-month period. Those wanting to be involved in an existing group or in setting up a new one can contact Lesley Irvine on 0428 880 297 or by email to lesley.irvine@utas.edu.au.

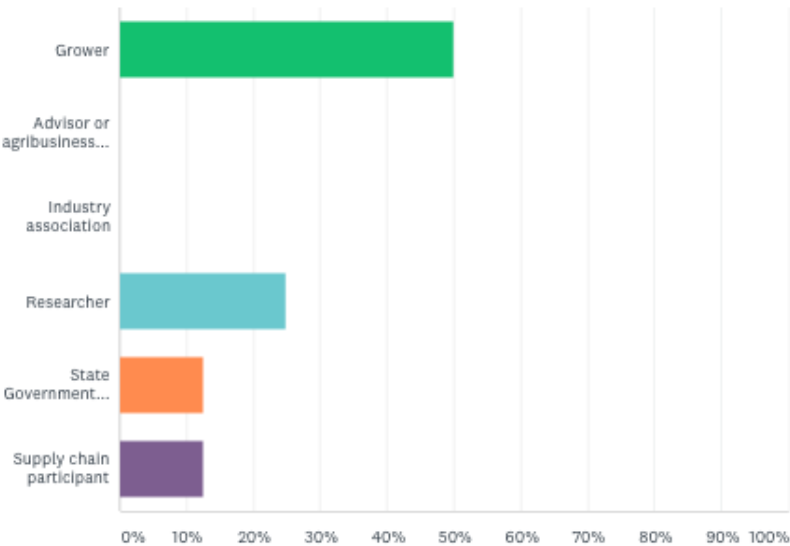
FEED YOUR MIND: A three-day agriculture experience for year 11 & 12 students. See first-hand the science behind Tasmanian agricultural businesses, including a milky dairy, commercial flower production, cider orchard, vegetable processor and more. 9-11 December 2019, North-West Tasmania. Details from www.utas.edu.au/feed-your-mind-feed-the-world.

Appendix 5 – R&D Forum evaluation survey results

These are the detailed results from the evaluation survey following the VegNET Tas R&D Forum.

Which group best describes your role?

Answered: 8 Skipped: 0



If you are a grower, please list your main crop types

Answered: 3 Skipped: 5

RESPONSES (3)

WORD CLOUD

TAGS (0)

☐ Apply to selected ▾ Filter by tag ▾

Showing 3 responses

☐ potatoes, peas, poppies, beans, sweetcorn and celeriac

11/8/2019 8:27 AM

☐ Potatoes

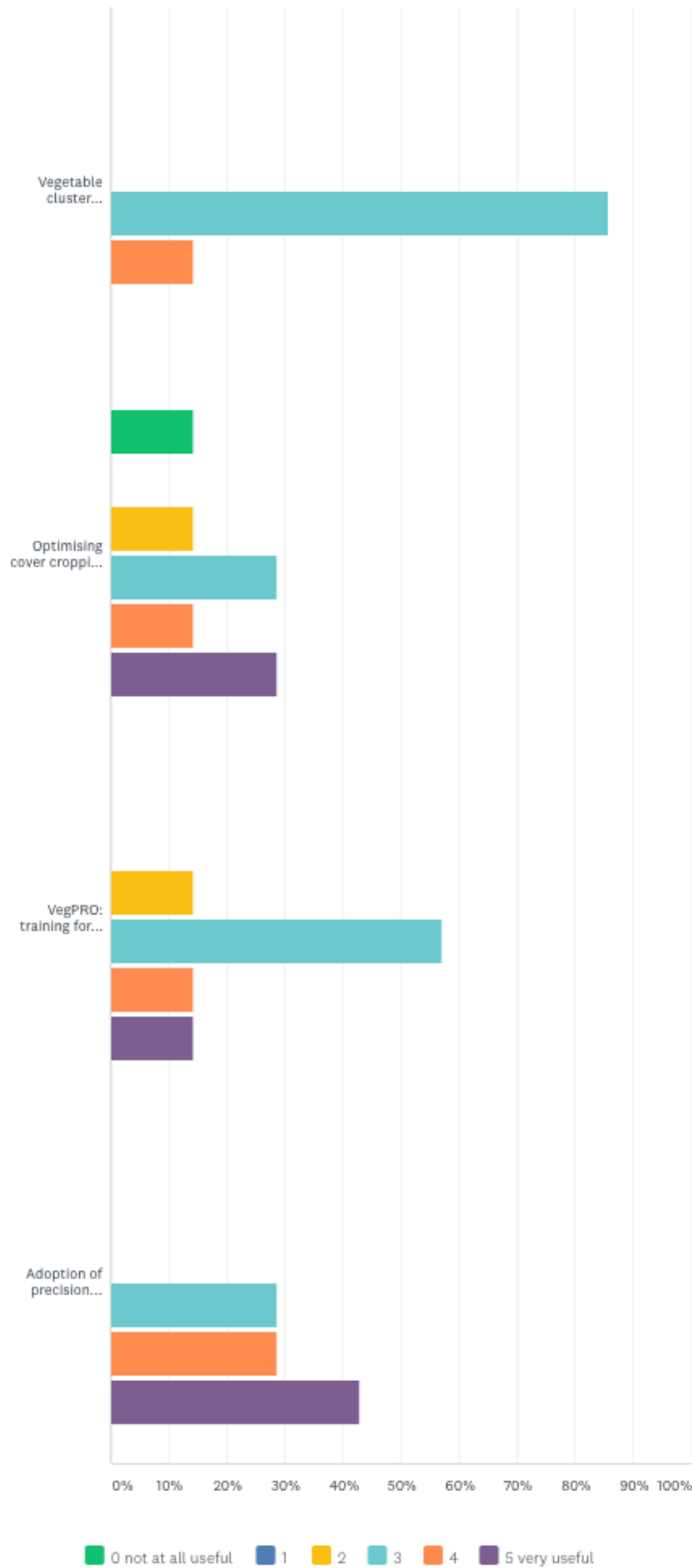
11/7/2019 3:10 PM

☐ babyleaf salad

11/7/2019 1:54 PM

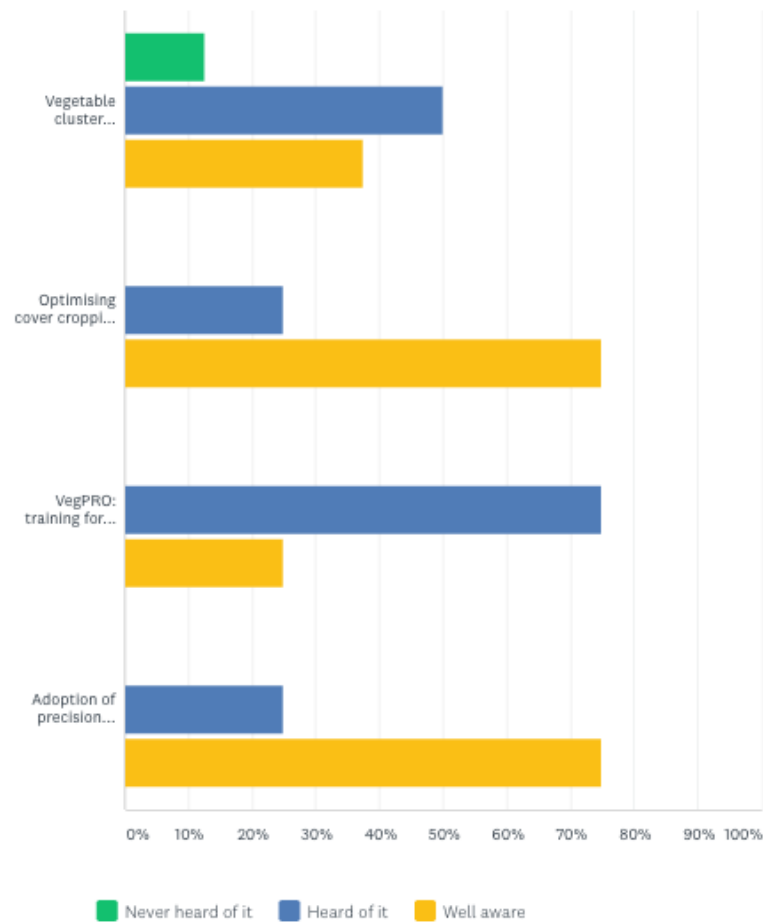
On a scale of 1-5, how useful was the information presented to you today for your business?

Answered: 7 Skipped: 1



Were you already aware of the projects presented to you today?

Answered: 8 Skipped: 0



Overall, how would you rate the following aspects of the workshop?

Answered: 8 Skipped: 0

